

What is claimed is:

1. A printing machine for recording an image on a printing plate, and printing the image by using the printing plate  
5 with the image recorded thereon, comprising:
  - a plate cylinder for supporting a printing plate as mounted peripherally thereof;
  - an image recorder having a recording head movable along a surface of said plate cylinder in a direction parallel  
10 to an axis of rotation of said plate cylinder for recording an image on said printing plate mounted peripherally of said plate cylinder;
  - an ink feeder for feeding ink to said printing plate with the image recorded thereon mounted peripherally of  
15 said plate cylinder;
  - a printing means for printing an image on a printing sheet by using the printing plate with an ink fed; and
  - retreat moving means, operable at a printing time, for moving said recording head to a retreat position  
20 sideways from a moving region where said recording head is moved at an image-recording time.
2. A printing machine as defined in claim 1, further comprising a shielding plate disposed between said moving  
25 region and said retreat position, and defining an opening for

allowing passage of said recording head.

3. A printing machine as defined in claim 2, wherein said  
shielding plate is a side plate for rotatably supporting said  
5 plate cylinder.

4. A printing machine as defined in claim 2, further  
comprising a gas jet nozzle for forming an air curtain along  
said opening as a barrier between said retreat position and  
10 said moving region.

5. A printing machine as defined in claim 2, further  
comprising a shielding door for opening and closing said  
opening of said shielding plate.

15

6. A printing machine as defined in claim 5, wherein said  
shielding door is attached to a position of said recording  
head opposed to said moving region when said recording  
head is in said retreat position, for closing said opening of  
20 said shielding plate when said recording head is in said  
retreat position.

7. A printing machine as defined in claim 2, further  
comprising gas flow forming means for forming a gas flow  
25 directed from said retreat position toward said moving

region.

8. A printing machine as defined in claim 7, wherein said  
gas flow forming means includes a chamber for enclosing  
5 said recording head moved to said retreat position, said  
chamber defining an opening opposed to said moving region  
for allowing passage of said recording head, and a fan for  
drawing a gas from outside said printing machine into said  
chamber.

10

9. A printing machine as defined in claim 1, further  
comprising a chamber for enclosing said recording head  
moved to said retreat position, said chamber defining an  
opening opposed to said moving region for allowing passage  
15 of said recording head.

10. A printing machine as defined in claim 9, further  
comprising a gas jet nozzle for forming an air curtain along  
said opening as a barrier between inside of said chamber  
20 and outside of said chamber.

11. A printing machine as defined in claim 9, further  
comprising a shielding door for opening and closing said  
opening of said chamber.

25

12. A printing machine as defined in claim 11, wherein  
said shielding door is attached to a position of said recording  
head opposed to said moving region when said recording  
head is in said retreat position, for closing said opening of  
5 said chamber when said recording head is in said chamber.

13. A printing machine as defined in claim 9, further  
comprising gas flow forming means for forming a gas flow  
directed from inside of said chamber toward outside of said  
10 chamber.

14. A printing machine for recording an image on a  
printing plate, and printing the image by using the recorded  
printing plate with ink fed thereon, comprising;

15 a plate cylinder for supporting a printing plate as  
mounted peripherally thereof;

an image recorder having a recording head movable  
along a surface of said plate cylinder in a direction parallel  
to an axis of rotation of said plate cylinder for recording an  
20 image on said printing plate mounted peripherally of said  
plate cylinder;

retreat moving means for moving said recording  
head in a direction parallel to said axis of rotation of said  
plate cylinder and positioning said recording head to a  
25 retreat position which is outside of said plate cylinder, after

image-recording time;

protection means for reducing a chance of said recording head being contaminated by printing particles during a printing time.